

## **MARKET BASKET ANALYSIS USING FP-GROWTH ALGORITHM IN ORGANIC MEDICINE STORE**

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### **ABSTRAK**

Nowadays organic medicine store grows rapidly. Organic medicine store usually has interesting products. Sometimes the products purchased by the customer is not related in terms of functionality. The products have different function but purchased simultaneously. The amount of transaction receipt which is saved into database can be huge. Therefore, there is a need to analyze those kinds of data using appropriate approach. This study will use data mining approach to utilize the data. The data will be analyzed using market basket analysis to discover association rules of the products. Market Basket Analysis analyzes customer buying habits by finding associations between the different items that customers place in their shopping baskets. This study will use Frequent Pattern-Growth (FP-Growth) algorithm to find the frequent itemsets on the sales transaction data. Frequent Pattern-Growth (FP-Growth) algorithm is the improved version of Apriori in database scanning. This study produced customer purchasing patterns identification based on the sales transaction data and application software development which takes advantage of Association Rules with FP-Growth algorithm. The rules produced from the application are always involving Zinc, Muncord and Calcium 1 at high level of confidence.

**Kata Kunci** : Market Basket Analysis, Association Rules, FP-Growth, Purchasing Pattern, Organic Medicine Store

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Nowadays organic medicine store grows rapidly. Organic medicine store usually has interesting products. Sometimes the products purchased by the customer is not related in terms of functionality. The products have different function but purchased simultaneously. The amount of transaction receipt which is saved into database can be huge. Therefore, there is a need to analyze those kinds of data using appropriate approach. This study will use data mining approach to utilize the data. The data will be analyzed using market basket analysis to discover association rules of the products. Market Basket Analysis analyzes customer buying habits by finding associations between the different items that customers place in their shopping baskets. This study will use Frequent Pattern-Growth (FP-Growth) algorithm to find the frequent itemsets on the sales transaction data. Frequent Pattern-Growth (FP-Growth) algorithm is the improved version of Apriori in database scanning. This study produced customer purchasing patterns identification based on the sales transaction data and application software development which takes advantage of Association Rules with FP-Growth algorithm. The rules produced from the application are always involving Zinc, Muncord and Calcium 1 at high level of confidence.

**Keyword** : Market Basket Analysis, Association Rules, FP-Growth, Purchasing Pattern, Organic Medicine Store